Shorebird habitat use during fall and spring migration in the Greater Skagit-Stillaguamish Delta

Gary Slater, Ecostudies Institute*
Roger Fuller, The Nature Conservancy
Greg Hood, Skagit River System Cooperative

In the Pacific Northwest, the extensive loss and degradation of estuarine habitats has contributed to shorebird population declines. Estuaries serve as critical staging areas for shorebirds during migration between breeding and wintering grounds. Agricultural lands may serve as surrogate habitats, yet information on avian-habitat relationships in many areas are lacking. We investigated habitat use by shorebirds during migration as part of a waterbird monitoring program in the Greater Skagit-Stillaguamish Delta (GSSD). We surveyed shorebirds in agricultural, emergent marsh, channel, and intertidal flat habitats. In contrast to previous studies, few shorebirds were detected on commercial agricultural fields. However, shorebirds consistently used a wildlife-managed (i.e., flooded) agricultural field. Several species utilized this habitat across tide periods, but at high tide, when estuarine habitats were unavailable, large congregations of birds were observed. Shorebirds were abundant in marsh, channel, and intertidal habitats during low and intermediate tides, and species segregated by habitat type. Our results suggest that shallow, non-tidal wetlands, which have been virtually eliminated from the GSSD, are an important habitat for shorebirds. Successful conservation will require a landscape approach, where wetland habitats across the natural elevational gradient are conserved.